

Please amend the above-entitled application as follows:

IN THE CLAIMS:

a. Please amend the claims as follows:

1. (Amended) An [[E]]emergency [[L]]lighting [[B]]battery  
[[S]]system, comprising:
  - a [[B]]battery;
  - a [[P]]processing [[C]]circuit;
  - ~~a multi-voltage power circuit; and~~
  - a multi-voltage input including a single input channelwherein the single input channel is adapted to connect to various power sources; and
  - an [[O]]occupation [[A]]awareness [[S]]sensor.
2. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery  
[[S]]system of claim 1, further comprising:
  - a [[C]]current [[S]]sensor; and
  - a [[V]]voltage [[S]]sensor.
3. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery  
[[S]]system of claim 2, further comprising:
  - a [[L]]lighted [[P]]push-[[B]]button [[T]]test [[S]]switch.

4. (Amended) ~~The Emergency Lighting Battery System of claim 3,~~  
~~further comprising:~~ An emergency lighting battery system,  
comprising:

a battery;  
a processing circuit;  
a multi-voltage power circuit;  
an occupation awareness sensor;  
a current sensor;  
a voltage sensor;  
a lighted push-button test switch; and  
an inverter frequency sensor.

5. (Amended) The [[E]]emergency [[L]]ighting [[B]]attery  
[[S]]ystem of claim 3, wherein said [[P]]rocessing [[C]]ircuit  
comprises:

a [[P]]rocessing [[D]]evice, and  
a [[W]]atch-[[D]]og [[T]]imer.

6. (Amended) The [[E]]emergency [[L]]ighting [[B]]attery  
[[S]]ystem of claim 5, wherein said [[P]]rocessing [[C]]ircuit  
further comprises:

a [[V]]olatile [[M]]emory; and  
a [[N]]on-[[V]]olatile [[M]]emory.

7. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[P]]processing [[C]]circuit further comprises an [[O]]optional [[R]]real-[[T]]time [[C]]clock.

8. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[P]]processing [[D]]device comprises:

at least one [[F]]flag [[R]]register; and

a [[P]]pseudo [[R]]real-[[T]]time [[C]]clock.

9. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 5, wherein said [[P]]processing [[D]]device comprises:

at least one [[F]]flag [[R]]register;

a [[P]]pseudo [[R]]real-[[T]]time [[C]]clock;

an [[O]]optional [[V]]volatile [[M]]memory; and

an [[O]]optional [[N]]non-[[V]]volatile [[M]]memory.

10. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[N]]non-[[V]]volatile [[M]]memory stores [[P]]processor [[C]]configuration [[D]]data.

11. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 10, wherein said [[P]]processor [[C]]configuration [[D]]data comprises:

a [[R]]random [[D]]days [[V]]variable; and

a [[R]]random [[T]]test [[N]]number.

12. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 10, wherein said [[N]]non-[[V]]volatile [[M]]memory stores [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state.

13. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 9, wherein said [[O]]optional [[N]]non-[[V]]volatile [[M]]memory stores [[P]]processor [[C]]configuration [[D]]data.

14. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 13, wherein said [[P]]processor [[C]]configuration [[D]]data comprises:

a [[R]]random [[D]]days [[V]]variable; and

a [[R]]random [[T]]test [[N]]number.

15. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 13, wherein said [[O]]optional [[N]]non-

[[V]]volatile [[M]]memory stores [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state.

16. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 5, wherein said [[P]]processing [[D]]device runs a [[S]]state [[M]]machine.

17. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 16, wherein said [[S]]state [[M]]machine comprises:

a [[S]]sleep [[S]]state;  
an [[I]]initialization [[S]]state;  
a [[S]]start-[[U]]up [[S]]state;  
a [[C]]charge [[S]]state;  
a [[T]]test [[S]]state; and  
an [[E]]emergency [[S]]state.

18. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 16, wherein said [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state are written to said [[N]]non-[[V]]volatile [[M]]memory on a periodic basis.

19. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 18, wherein said [[P]]\_processing [[D]]\_device runs a [[S]]\_state [[M]]\_machine.

20. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 19, wherein said [[V]]\_variables, [[F]]\_flags, and [[M]]\_machine [[S]]\_state are written to said [[N]]\_non-[[V]]\_volatile [[M]]\_memory prior to said [[S]]\_state [[M]]\_machine entering a [[Te]]\_test [[S]]\_state.

21. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 19, wherein said [[V]]\_variables, [[F]]\_flags, and [[M]]\_machine [[S]]\_state are written to said [[N]]\_non-[[V]]\_volatile [[M]]\_memory prior to said [[S]]\_state [[M]]\_machine entering an [[E]]\_emergency [[S]]\_state.

22. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 5, wherein said [[P]]\_processing [[D]]\_device performs a self-test on a periodic basis.

23. (Amended) ~~The Emergency Lighting Battery System of claim 22,~~  
An emergency lighting battery system, comprising:

a battery;

a processing circuit;

a multi-voltage power circuit;  
an occupation awareness sensor;  
a current sensor;  
a voltage sensor;  
a lighted push-button test switch;  
an inverter frequency sensor;  
a processing device;  
a watch-dog timer;  
wherein said processing device performs a self-test on a  
periodic basis; and  
wherein [[D]]data is transmitted from said [[P]]processing  
[[D]]device to said [[L]]lighted [[P]]push-[[B]]button  
[[S]]switch.

24. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery  
[[S]]system of claim 23, wherein said transmitted [[D]]data  
includes status information.

25. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery  
[[S]]system of claim 24, wherein said status information is  
transmitted on a periodic basis.

26. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 25, wherein said periodic status information includes error information.

27. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 25, wherein said periodic status information is transmitted at a rate beyond human perception.

28. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 27, wherein said transmitted periodic status information appears to human observers as a periodic heart beat.

29. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 2, further comprising:  
a test [[S]]\_switch; and  
an [[E]]\_external [[D]]\_data [[T]]\_transmission [[S]]\_system.

30. (Amended) The [[E]]\_emergency [[L]]\_lighting [[B]]\_battery [[S]]\_system of claim 29, wherein said [[E]]\_external [[D]]\_data [[T]]\_transmission [[S]]\_system comprises a radio transmitter.

31. (Amended) ~~The emergency lighting battery system of claim 29,~~  
An emergency lighting battery system, comprising:  
a battery;



a processing circuit;  
a multi-voltage power circuit;  
an occupation awareness sensor;  
a current sensor;  
a voltage sensor;  
a switch; and  
an external data transmission system;  
wherein said [[E]]external [[D]]data [[T]]transmission  
[[S]]system comprises a powerline data interface.

32. ~~(Amended) The Emergency Lighting Battery System of claim 29,~~

An emergency lighting battery system, comprising:

a battery;  
a processing circuit;  
a multi-voltage power circuit;  
an occupation awareness sensor;  
a current sensor;  
a voltage sensor;  
a switch; and  
an external data transmission system;  
wherein said [[E]]external [[D]]data [[T]]transmission  
[[S]]system transmits data to a Central Data Collection point.